EPA's Role in Emergency Response: Hurricanes Harvey, Irma, and Maria

As part of its mission, the Environmental Protection Agency is responsible for responding to chemical, biological, and radiological releases; oil spills; and nationally significant emergencies. The Agency collaborates with federal partners, state and local governments, tribes, and other stakeholders to ensure the mitigation of risks to human health and the environment. The 2017 responses to Hurricanes Harvey, Maria, and Irma provided opportunities for EPA to test its emergency capabilities.

EPA is the interagency lead for Emergency Support Function (ESF) #10, Oil and Hazardous Materials Response Annex. During the 2017 hurricane responses, the Agency provided the following support:

- Emergency Responders – **More than 1,400 EPA employees and contractors** were deployed to provide technical and response support in EPA Emergency Operations Centers during the 2017 hurricane response. EPA has approximately 240 emergency responders available to deploy anywhere in the country during a response. Additionally, the National Incident Management Assistance Team (N-IMAT) is available to provide EPA with an additional resource of incident command system (ICS) trained and experienced personnel from all ten EPA Regions to help support response events.
- Emergency Fuel Waivers – To ensure fuel was available during Hurricanes Harvey, Irma, and Maria, EPA issued **14 separate fuel waivers covering 38 states**, which are particularly important for emergency vehicles. Without waivers, many fuel stations could have been without fuel and citizens could have been stranded or unable to fuel their vehicles in impacted areas. These waivers can last up to 20 days, but EPA continuously monitors fuel supplies and may issue additional waivers in the same affected areas. EPA granted fuel waivers in Texas, Louisiana, Georgia, Florida, Puerto Rico, and issued three multi-state waivers --two of which covered 38 states/commonwealths and the District of Columbia.
- Mobile Assets -- EPA used several assets to help gather data to assist emergency personnel with response activities:
    - ASPECT, the nation's only **airborne** real-time chemical and radiological detection, infrared, and photographic imagery platform. EPA used the ASPECT aircraft to provide real-time chemical information to first responders after the Arkema Chemical Plant explosion during Hurricane Harvey,
    - PHILIS, a **mobile laboratory** for on-site analysis of air, soil, and water samples,
    - and TAGA, a **mobile laboratory** capable of real-time ambient air monitoring, sampling, and analysis of outdoor air emissions.
- Chemical Releases – EPA emergency responders worked with state and county authorities to respond to the Arkema Chemical Plant explosion due to power outages from flood waters caused by Hurricane Harvey.
- Water Assessments - EPA worked with state, local, tribal and federal partners (e.g. US Army Corps of Engineers, DHS, FEMA) to assist impacted drinking water and wastewater systems and provide water sector damage information. In total, EPA and partners assessed approximately:
    - 6,200 drinking water systems
    - 1,220 wastewater systems
- Rapid Assessment, Response and Debris Management - EPA assessed Superfund, Oil, Risk Management Plan and Facility Response Plan facilities for hazardous substances or oil releases. Additionally, EPA assessed contaminated debris, storm-impacted infrastructure, and threats to human health and the environment. The Agency also assessed and cleaned up public and private properties, rendered properties safe from hazardous materials, and facilitated removing solid waste, ash, and debris. This included:
    - 250 sites (Superfund, removal, and oil)
    - 1,130 Risk Management Plan (RMP) field assessments
    - 345 Facility Response Plan (FRP) field assessments
    - 7,100 disaster debris management sites
    - 320 spills/discharges
    - 4,025 vessels assessed (vessels include tanks or containers at onshore oil and natural gas production facilities)